

# ALMA Detection of a Disk/Jet System Driven by the Outbursting Massive Protostar NGC6334I-MM1B

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I will present the latest ALMA images of the continuum and molecular line emission from the massive protostellar system NGC6334I-MM1 which is in the midst of an extraordinary outburst in continuum and maser emission that began in 2015. We detect a highly-collimated north/south outflow in several thermal gas tracers (including SiO and CS) that originates from the hypercompact HII region (HCHII) MM1B which is believed to be the radiative source of the accretion outburst. Embedded along this outflow are the flaring water masers and the non-thermal centimeter continuum source CM2. At 0.1'' resolution (130 au), we detect a compact disk-like structure toward MM1B in multiple lines of SO2 whose kinematics imply a central object with the mass of a B3 ZAMS star, consistent with the strength of the HCHII region observed prior to the bloating of the photosphere that occurred in response to the recent accretion outburst. The presence of the disk/jet system clearly predates the current outburst, and suggests that massive stars form via a series of episodic, disk-mediated accretion events which power the surrounding hot core molecular line and dust emission. This presentation is complementary to that of Todd Hunter, and should follow it in the program.

*Outflow Disks*